ABSTRACT OF THE DISCLOSURE

This invention provides a method to interpret and recognize huma faces. The 2nd-order eigenfeatures are used for lighting-invariant face description and both the 1st-order and 2nd-order eigenfeatures are used for view-angle-invariant face description. After normalization and quantization, these features can describe face effectively and efficiently. In order to further reduce the size of face descriptor, variable length code can be used to encode the quantized eigenfeatures. This invention can be used in internet multimedia database retrieval, digital library, video editing, surveillance and tracking, and other applications using face recognition and verification.